PCT/EP2003/004602

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 0000053505	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP2003/004602	International filing date (*day/month/year*) 02 May 2003 (02.05.2003)	Priority date (*day/month/year*) 07 May 2002 (07.05.2002)
International Patent Classification (IPC) or national classification and IPC C07C 51/44		
Applicant BASF AKTIENGESELLSCHAFT		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
26 September 2003 (26.09.2003)	20 February 2004 (20.02.2004)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP2003/004602

I. Basis of the report

1. With regard to the **elements** of the international application:*

☒ the international application as originally filed

☒ the description:
pages 1-29, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☒ the claims:
pages 1-3, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).*

** *Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

☐ restricted the claims.

☐ paid additional fees.

☐ paid additional fees under protest.

☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

☐ complied with.

☐ not complied with for the following reasons:

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

☒ all parts.

☐ the parts relating to claims Nos. _____

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: BOX IV

Lack of unity of invention

D1: DE-A-3432082

D2: C.A. 84:136272; summary of JP-A-50-142511

D3: US-A-4219389

The Boards of Appeal of the European Patent Office have decided that claims to products defined by their production process ("product-by-process" claims) are admissible, apart from all other conditions, only when the products themselves meet patentability requirements, i.e. are novel and involve an inventive step.

In connection with the present claim 2, it appears necessary to point out that EPC Article 64(2) does not grant novelty to a claim drafted as a "product-by-process" claim when the product *per se* is not novel, nor does it justify or permit the inclusion by an applicant of such claims in an European patent which would not meet the requirements of EPC Article 52(1) (T 0674/92).

In this context, decision T664/90 is pointed out (see special reasons, point 4), in which the Board emphasises: "once the product itself is part of the state of the art and is not novel according to the criterion of novelty as set out in EPC Article 54(1), the fact of defining this product by reference to a new process is irrelevant to the question of novelty".

As a result, "product-by-process" claims generally must be examined independently of the process.

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: **BOX IV**

When examining the novelty of a "product-by-process" claim, its novelty must therefore be assessed and examined independently of the possible novelty of the process.

Consequently, the product as per claim 1 is not novel over the aqueous sodium acrylate solution according to D1 and D2.

In the present case, a use claim to the product is involved, rather than a "product-by-process" claim to the product. Consequently, claim 2 lacks unity of invention because of its *a posteriori* lack of unity of invention in relation to D1 and D2.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1, 3	YES
	Claims	2	NO
Inventive step (IS)	Claims	3	YES
	Claims	1	NO
Industrial applicability (IA)	Claims	1-3	YES
	Claims		NO

2. Citations and explanations

Claim 2 relates to the use of a known aqueous sodium acrylate solution used to prepare a polyacrylate. This is already known from D1 (example 3) and D2. Claim 2 is thus not novel.

Claim 1, part c, relates to the preparation of an aqueous sodium acrylate solution by salt formation of gaseous acrylic acid with an aqueous alkali OH solution, alkali$_2$-O_3 solution or alkali-HCO_3 solution.

D2 describes the neutralisation of acrylic acid or methacrylic acid with NaOH in an aqueous solution. The feature "gaseous acrylic acid" and steps a) and b) according to claim 1 are not mentioned in D1 and D2. Claim 1 is thus novel over these documents.

D3 (example in column 5, lines 37-43) describes the conditions at the head of the column: 100 mm Hg and 130°C. In these conditions, the acrylic acid exiting through point 9 is gaseous.

Claim 1 thus differs from D3 by the presence of feature c).

However, it was obvious to use gaseous acrylic acid for the neutralisation of the type described in D2, since gaseous acrylic acid is produced at the head of the upstream distillation column according to D3. Claim 1 is thus not inventive in relation to the combination of D3 with D2.

D1 is further removed than D2 because the alkali acrylate solution is produced therein via the alkaline earth acrylate.

Claim 3 should be considered inventive because the feature of a "polymerisation device" cannot be derived from the combination of D2 and D3.